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From F/A to F or A:
Training Hornet Aviators to New Levels

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From F/A to F or A:

Training Hornet Aviators to New Levels

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MMS Paper

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Executive Summary

Title: Aircrew's Future Role inside the Hornet

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Thesis: In order for Naval Aviation to continue to support the current war on terror and to ensure dominance and preparedness for future threats, the current training doctrine must be changed. As it stands today, F/A-18 Hornet/Super Hornet aircrew are not always capable of maintaining the tip-of-the spear knowledge and proficiency necessary for supremacy in both air-to-air and air-to-ground combat tactics. This deficiency can be remedied by dividing and training aircrew in either an air-to-air or an air-to-ground role. This new approach will allow F/A-18 Hornet/Super Hornet aircrew to shed the jacks-of-all trades masters of none label and permit them to maximize the lethality of the Hornet.

Discussion: F/A-18 aircrew are currently being asked to maintain proficiency in more mission areas than the current technology allows for. The F/A-18 is a capable dual mission aircraft, however the pilot of the F/A-18 requires significantly more training time than is currently allotted/available to deliver the full capabilities of the platform during combat.

As aircrew take on more missions, their success rates, both in air-to-air and air-to-ground combat has continued to fall. The solution to this dilemma is to divide and train aircrew mainly in either the air-to-air or the air-to-ground arena, essentially, turning an average multi-role aviator into an expert single role fighter or attack aircraft pilot.

To ensure continued and future success, a considerable portion of the naval aviation community and training pipeline will need to be revamped. Naval Aviation's leaders will have to evaluate the utility of existing doctrine and tactics. Today's enemy combatants (in the air and on the ground) will not necessarily be the combatants F/A-18 Hornet/Super Hornet aircrew will be ordered to face in the future.

Conclusion: From day one of the F/A-18s existence, F/A-18 aircrew have been doing more with less. It's time to take that mantra and apply it to Naval Aviation's culture. By simply modifying Naval aviation's training approach, the Navy will receive a considerably more proficient product. The professional naval aviators flying in harms way deserve to train like best pilots in the world. In the end, the Hornet will serve in the capacity for which it was built, a true multi-mission/multi-role aircraft. The pilot however, should serve in the capacity for which he or she is best suited for, that being a single mission specialty role.

The United States Navy uses its premier fighter aircraft, the F/A-18 Hornet/Super Hornet, poorly by requiring its pilots and aircrew to maintain proficiency in both air-to-air and air-to-ground combat. This approach has led to aircrew becoming "jacks-of-all trades and masters of none." In order to maximize the lethality of the Hornet, this current doctrine must be changed.

It is important for leaders of the carrier aviation community to not become shortsighted when evaluating existing doctrine and tactics. The present conflict in the Middle East, while at times is challenging for the F/A-18 aircrew, is not an accurate representation of battle waged against a conventional enemy. As it stands today, the training syllabus for F/A-18 aircrew might be sufficient for the United States' current conflicts but may prove to be inadequate against a more formidable foe such as China.

The F/A-18 is a capable dual-mission aircraft; however, an F/A-18 pilot requires significantly more training time than is currently allotted/available in order to deliver the full capabilities of the platform during combat. As a Naval Aviator and Strike Fighter and Tactics Instructor (SFTI) who currently flies the F/A-18 Hornet, I have seen first-hand how this multi-mission concept has spread aircrew's abilities too thin and has led to a less than optimal tactical ability of the aircrew. A recent study of the historical mission success rates for F/A-18 aircrew during training missions shows an abysmal air-to-air mission success rate of 53.64% and an only slightly better 79.73% air-to-ground mission success rate.[1] This reduced tactical ability is a glaring critical vulnerability that a savvy enemy is likely to exploit. The solution to this dilemma is to divide and train aircrew mainly in either the air-to-air or the air-to-ground arena, essentially turning an average multi-role aviator into an expert single-role fighter.

To accomplish this task, a significant portion of the naval aviation community and training pipeline will need to be revamped. Currently, the fighting arm of deploying carrier air-wings is composed of four Hornet squadrons. These squadrons have aircrew equally trained in both air-to-air and air-to-ground tactics. A more effective use of the air-wing's assets would be to divide the air-wing in half, creating two air-to-air squadrons and two air-to-ground squadrons. Each newly designated single mission squadron can now spend the entire turn-around cycle between deployments training and mastering a single mission.

In order to train these single mission squadrons, several programs must be changed as well. The first program that will require modification is the Strike Fighter and Readiness Program (SFARP) training syllabus. This program's syllabus represents the required training that all carrier air-wings participate in prior to deployment. The current syllabus, unfortunately, was not designed to maximize aircrew's abilities to employ the Hornet in both arenas (air-to-air and air-to-ground) but to merely provide exposure to the various capabilities of the platform in both areas. By modifying this syllabus to train aircrew in either the air-to-air or the air-to-ground regime, a carrier air-wing will be able to deploy with a significantly more proficient and tactical fighting force.

An air-wing will normally begin its SFARP syllabus eight to ten months prior to its deployment by initially focusing on air-to-ground flights, then transition to the air-to-air flights roughly four months later. The air-to-ground flights take place on the training ranges in Fallon, Nevada, with the training ranges in Key West, Florida, being utilized for the air-to-air portion. As the air-wing's deployment approaches, the skills and

proficiency mastered at the beginning of the air-wing's SFARP training, a full 10 months prior, have no doubt begun to atrophy.

The current SFARP syllabus comprises 15 flights.[2] There are seven dedicated air-to-ground flights and eight dedicated air-to-air flights. It would be impractical to expect a squadron to achieve the level of expertise necessary to effectively combat an enemy, which is technologically the United States' equal, in the given amount of fixed flights/time allotted for SFARP if the Navy simply altered the SFARP syllabus and nothing else. Even if a squadron assumes a single-mission role during SFARP and subsequently participates only in the corresponding syllabus, the squadron would still require additional training to reach the necessary level of expertise. However, if the squadron does assume a single-mission role during the SFARP syllabus, in conjunction with other dedicated single-mission training throughout its turn-around cycle and unit level training evolutions, the squadron will stand a much better chance of mastering its skills.

To properly accommodate a single-mission squadron's training requirements during SFARP, the current syllabus will have to change and every effort should be taken to ensure that a squadron can still complete the new training syllabus in the same amount of training (15 flights) that the prior syllabus allotted. A typical carrier air wing's turnaround cycle can, and usually does, become very compressed. Adding more flights or time to SFARP would further compress the turn-around cycle and jeopardize a squadron's unit level training and place an undue burden upon the short-handed SFARP staff. The only effective way to train the aircrew to ensure each naval aviator develops the proficiency and expertise necessary to effectively combat an advanced enemy is to

singularize the aircrew's mission while utilizing the same amount of training time as a multi-mission squadron; this approach will in essence double the amount of training time for the new single mission squadron.

The revamped air-to-ground and air-to-air SFARP training syllabi should be customized for each squadron's specific needs. A squadron's training officer will be required to work closely with the SFARP staff to insure each squadron's tailored syllabus meets the individual squadron's requirements. The chemistry and make-up of a squadron's ready-room will dictate where the training officer should focus the squadron's tactical attention.

The new air-to-ground syllabus should be comprised of flights consisting of division high-altitude attack bombing flights, division target area tactics, division night attack tactics, section day close air support, section night close air support, strike coordination and reconnaissance (SCAR) flights with special forces integration, and a division surface-to-air counter tactics and general-purpose bombing attack flights. Similarly, the air-to-air training syllabus should include air combat maneuvering/basic fighter maneuvering (ACM/BFM), section/division day tactical defensive and offensive counter air intercepts and section/division night tactical defensive and offensive counter air intercepts. The intercept type hops should be flown utilizing all timelines available when practicable.

A more in-depth look into the training cycle of deployable F/A-18 squadrons reveals that each carrier-based naval aviator is not dual mission capable but in actuality must be tri-mission capable. In addition to an aviator's air-to-air and air-to-ground responsibilities, a naval aviator must also be trained to land on an aircraft carrier. Once

an air-wing finishes SFARP, the individual squadrons commence field carrier landing practice (FCLP) in preparation for carrier qualifications aboard the air-wing's aircraft carrier. A squadron will execute FCLPs for up to two months prior to the deployment. Training for shipboard landings is a long and tedious evolution that takes naval aviators away from tactics for a considerable amount of time. This time away from tactics compounds the decline in proficiency issues all ready raised in the paper.

A carrier-based naval aviator will spend almost as much time training, qualifying, and re-qualifying to land on an aircraft carrier as he or she will spend training for air-to-air or air-to-ground tactics. One method of easing the proficiency dilemma associated with FCLPs is to combine a tactical training flight with a FCLP flight. A common argument against combining these flights is that the F/A-18 does not carry enough fuel to complete genuine tactical training before the pilot must head back to the field to begin FCLPs. This conundrum is undeniably one of the challenges impeding on the multi-mission naval aviator's tactical proficiency. In order to accomplish this combination training, each subsequent flight would have to be divided into either an air-to-air/FLCP flight or an air-to-ground/FCLP flight. The only equitable division of flights would be to alternate every other flight from air-to-air to air-to-ground. The amount of time available is too finite to allocate between multiple missions. A single-role squadron would experience less of a burden allocating the precious extra fuel/time of an FCLP flight to a singularized mission.

Today, a young carrier naval aviator will graduate from a fleet replacement squadron having been taught how to employ the Hornet in both the air-to-air and the air-to-ground arena. While certain aspects of a carrier aviator's training should be revamped

and improved, the initial core structure fundamentally should be kept the same. By keeping this basic flight training unchanged, the Navy will not require dedicated air-to-air and air-to-ground fleet replacement squadrons. Also, a graduate who has received multi-mission training can be placed in any fleet squadron regardless of the squadron's assigned singularized mission. This practice will reduce the burden placed upon the detailers and placement officers when assigning graduating students to the fleet.

Naval aviators leaving single mission squadrons to become instructor pilots in a fleet replacement squadron will also benefit from keeping the core structure of the fleet replacement squadron the same. Currently, the fleet replacement squadrons are subdivided into three major categories: air-to-air flights, air-to-ground flights, and carrier qualifications. An instructor pilot detailed to a fleet replacement squadron will naturally be placed in one of these three departments depending on what the mission his or her last squadron was assigned. A newly designated instructor pilot will not have to agonize over regaining his or her multi-mission qualifications prior to commencing instructing. Re-qualifying as a multi-mission pilot should, however, be highly encouraged and recommended to all instructor pilots at some point during his or her tenure at the fleet replacement squadron to simplify the detailing process back into a fleet squadron after his or her instructor tour.

Today, a significant portion of an F/A-18 aircrew's training is spent mastering the skills of a successful self-escort strike. A self-escort strike flight is a mission that takes place in a dynamic flight environment. The flight requires aircrew to execute both air-to-air and air-to-ground tactics while flying as a section or division and is a beloved trademark of the Hornet community. A naval aviator's ability to cope with the subtleties

of a self-escort strike flight is looked upon as a noble achievement. The demonstrated ability to cope serves as an excellent measurement of a pilot's abilities to handle issues that arise during complex flight regimes. Unfortunately, the self-escort strike flight has little utility against a modern threat nation state. The time spent training a naval aviator to execute a self-escort strike mission is disproportionate to the probability that the aviator will ever use the flight in actual combat. In fact, the probability of executing a self-escort strike flight is so remote that under the guidance of TOPGUN, both of the Navy's weapon schools (Strike Fighter Weapons School, Atlantic and Pacific) have modified their strike fighter weapons and tactics syllabus (SFWT) to only require two self-escort strike flights.[3]

The SFWT program serves as an integral portion of a young naval aviator's training and also should not be modified to reflect the squadron's singularized mission. The typical assignment scenario will require a pilot to spend 2 ½-3 years in any given squadron at one time and then rotate out of that squadron and into another. Due to this constant rotation, a naval aviator can serve time in as many as five different squadrons throughout his or her 20-year career. With each rotation a pilot could have the opportunity to transition from one singularized mission squadron to another. If a pilot has the proper initial training, this rotation can be accomplished with less refresher training while maintaining a higher level of competency.

A naval aviator will most likely complete most of his or her SFWT syllabus during the squadron's unit level training evolutions. There are SFWT syllabus flights available during major air-wing exercises, such as SFARP and Air-Wing Fallon; however, the bulk of the SFWT training opportunities are accomplished via a squadron's

unit level training throughout the turnaround cycle and while on cruise. The SFWT syllabus is administered in-house, meaning that as a whole a squadron's senior pilots will train the new SFWT candidates. That said, an added benefit of keeping the SFWT syllabus as a multi-mission syllabus versus a singularized mission syllabus is that the single mission squadron will never fully lose its dual mission capability as long as squadron members train their new pilots.

The United States Navy currently has a few squadrons that execute a singularized mission. One such squadron located on Naval Air Station Oceana, Virginia, is Strike Fighter Squadron twelve (VFC-12). Strike Fighter Squadron 12 is a dedicated aggressor squadron that focuses purely on air-to-air tactics. In a recent interview, Commander Karl Rauch of VFC-12 observed that his singularized mission squadron could execute its assigned duties notably more effectively than multi-mission squadrons. Commander Rauch also remarked that since joining VFC-12 he has become aware of a noticeable increase in his own personal abilities with regard to situational awareness and tactical prowess.[4] He attributes these tactical gains to the squadron's single-mission focus.

The concept of a multi-mission aircraft stemmed from the ever-increasing cost of developing and maintaining aircraft, weapons, and technology.[5] With the F/A-18 the United States government, along with the Department of Defense, sought to create and produce a cost-effective jet aircraft that could perform equally well in both the air-to-air and the air-to-ground arena. In theory, this new multi-mission capable platform would eliminate the need for the government to fund and maintain multiple single mission specific aircraft, such as the A-6 Intruder, OA4-Skyhawk, OV-10 Bronco, RF-4B, and

the F-14 Tomcat. The military understood that through technology one platform could capitalize on the singular qualities of multiple platforms.

After working with several concepts and designs, the Navy decided to fund and build the F/A-18 Hornet to handle its multi-mission needs. Lieutenant Commander D. J. Harris, a recent instructor at TOPGUN, described the F/A-18 Hornet as "an unbelievably capable aircraft that can perform an amazingly wide array of strike-fighter missions [with] high-speed computers [that] have enabled aircraft designers to build in the capabilities that allow the Hornet to be so versatile.[6]

Specifically, one attribute that enables the F/A-18 to be so effective is its ability to employ the most complex air-to-air and air-to-ground munitions in the United States arsenal. Utilizing its sophisticated air-to-air radar, the Hornet can effectively employ AIM9/9X Sidewinder, AIM-7 Sparrow, and AIM-120 AMRAAM missiles in the air-to-air arena.[7] For air-to-ground employment, the F/A-18 can carry and drop most variants of the Joint Direct Attack Munition (JDAM), Harpoon, Harm, SLAM/SLAM-ER, IR/Laser Maverick, Paveway 1-4 laser guided bombs (LGB), MK 82/83/84 general purpose bombs, mines, rockets, the Joint Stand Off Weapon (JSOW), and carry the 20mm Vulcan Cannon.[8] Most of these air-to-ground weapons operate in conjunction with the F/A-18's air-to-ground radar, a forward looking infrared (FLIR) pod, or the Hornet's laser spot tracker (LST).

Nearly every weapon system mentioned operates with of a different user interface, both in terms of planning and employment. Some of the user interfaces are more complicated than others; however, all of them offer unique challenges to the aircrew that employ them. Lieutenant Neal Young, the subject matter expert (SME) on

GPS weapons for VFA-15, has stated that "the complexity of planning and employing an automatic target acquisition (ATA) SLAM-ER missile shot involves knowledge and expertise that the average Hornet pilot does not currently possess."[9]

The SLAM-ER is just one complicated weapon system among many others. A person on the outside of this industry looking in may simply recommend that a squadron dedicate the necessary time needed to learn a weapon system, such as the SLAM-ER, then move onto the rest of the systems systematically until all weapons systems have been mastered. On paper, this theory sounds like a viable plan; however, in practice these weapons systems require constant attention on the part of the pilots to maintain any semblance of proficiency. According to Lieutenant Commander Harris:

> Unlike the computers in the Hornet that do not forget their programming and therefore perform tasks the same whether they practice them every day or just once a year. The aircrews that fly the Hornet, however, need repeated training to remain proficient at all of these missions. Unfortunately, training requires large amounts of fuel, time, ordnance, and most important, money. It has been demonstrated consistently through training and readiness reports and aircrew performance that we simply cannot train every aircrew that flies the Hornet to perform effectively all the mission areas that the F/A-18 can handle.[10]

Maintaining proficiency in this aircraft requires rote memorization and the ability to have repetitive daily training flights. These two key practices are necessary for a pilot to master the F/A-18's complex systems. Unfortunately, there is not enough time in the day for Hornet aircrew to train to all three of its mission requirements.

In a new article, the commanding officer of VMFA-224, Lieutenant Colonel

Wilbert Thomas, describes the constant influx of new technology that flows into his squadron as a training challenge that only serves to further complicate the squadron's already hectic training schedule and merely adds to the F/A-18's mission schizophrenia.[11] Lt. Col. Thomas wrote that he often asks himself, "How do I train everybody?"[12] And indicated that "Balancing the urgent need to work up on [equipment such as] the pods against other training requirements, and all on such short notice, proved [for] a headache."[13]

The direction of a squadron's training is directly tied to its deployment cycle, and a squadron's deployment cycle is directly tied to the United States Navy's training and readiness matrix, which is part of the Status of Resources and Training System (SORTS). The Navy's training and readiness matrix provides squadrons with a uniform means of reporting training readiness through C-Ratings (C1-C4).[14] C-Ratings reflect the level of training completed by a squadron at various mandatory reporting points throughout a squadron's turnaround cycle. The training and readiness matrix dictates what training (air-to-air, air-to-ground, etc) must be accomplished to achieve a certain C-Rating prior to the various mandatory-reporting points throughout a squadron's turnaround cycle.[15] Unfortunately, the matrix also simultaneously restricts the direction the training officer of a unit may wish to take a squadron with respect to specific areas of training. The matrix is not tailored for a specific squadron's needs and offers very little flexibility for squadrons wishing to focus on one specific area over another. A squadron's mandatory adherence to the training and readiness matrix exacerbates its perpetual slide back into the master of none, jack-of-all-trades category.

In the years prior to 1992, before the United States Navy began adopting and implementing the multi-mission role for the Hornet, the Navy's squadrons enjoyed very high levels of training and readiness.[16] Pilots were able to focus their training on specific mission areas and not the entire gamut of areas that current aircrew deal with daily. According to the Center for Naval Analysis (CNA), training and readiness levels have been steadily declining since aircrew first began flying multi-mission roles.[17] In fiscal year 1994-1995, the average air-wing rarely had an overall SORTS rating below three.[18] In fiscal year 1998-1999, the average air wing did not achieve an overall SORTS rating of three until within five months of deployment.[19] The CNA found that 18% of the reduction in overall SORTS rating was attributable to the replacement of highly specialized aircraft with multi-mission aircraft.[20]

As aircrew began taking on more missions, the defense budget for training remained the same.[21] The result of this multi-mission training is a reduced training and readiness capability in the fleet.[22] Further analysis by CNA revealed that even after additional money had been allocated for spare parts, more flight hours and various personnel issues, readiness levels continued to fall due to increased demands on the aircrew.[23] The staff at the East Coast Weapons School (SFWSL) recently studied the first run of 903 bombing missions by F/A-18 pilots during training hops. Of these runs, 20.93% of the time the pilot was unable to release his ordnance on the first pass due either the aircraft being out of parameters, the pilot making a switchology error, the pilot not finding the target (poor target acquisition), range, or an aircraft malfunctioning. Most, if not all, of these reasons can be attributed to insufficient training. Captain C. F Ward, U.S. Naval Reserve (Retired), summed up this alarming trend when he stated:

> Thus, the choice is either increase the flight hours for Navy pilots to compensate for this carrier requirement or spend the money to automate, to whatever degree of redundancy you wish, the carrier landing. If you choose the first option, then, as suggested, sort out which of the non-flying collateral duties that will be dispensed with, as days simply cannot be lengthened just to allow more fight hours.[24]

Thus far, today's Hornet pilots have been able to accomplish significantly more with significantly less than their counterparts in the sister services. Many pilots in the aviation community acknowledge that at no point in history has one platform been asked to accomplish so many different tasks. These tasks have obviously taken a toll on Naval Aviation and subsequently allowed Naval Aviation's counterparts, the United States Air Forces' fighter pilots, to easily assume the responsibility of having and training the world's best pilots. This is not an arbitrary title given to the service that flies the most sophisticated aircraft. The F/A-18 is comparable in comparisons among the world's most advanced airplanes. The men and women flying the Hornet have also demonstrated, time and time again, that they are equally as skilled and intelligent as those flying other platforms, such as the F-15E Strike Eagle. That said, if the platform and the man flying the platform are not too inherently different, then the only remaining variable separating the F/A-18 community from a superior community such as the Strike Eagle must be the training.

The Air Force in fact does train its pilots very differently from Naval Aviation. The Air Force are masters at the singularized mission. As an example, the Air Force employs one of its multi-mission platforms, the F-15, in relatively the same way proposed in this paper. The F-15 community is divided into a fighter side (F-15C) and a

tactical strike side (F-15E). The F-15 Eagle is a fourth generation aircraft, like the F/A-18, yet the Eagle community is without a peer.[25]

Training officers in fleet Hornet squadrons are required to manage and balance the training their squadrons receive against the Navy's parts allocation processes. Deciding when a squadron receives the latest weapons systems is always a struggle for military planners. There are not enough of the critical weapons systems in the inventory (AIM-9X, ATFLIR PODS, LINK 16, etc) to allow every F/A-18 squadron to train with such devices all year long. These critical systems are in great demand in theater; this demand means that the squadrons training back home are not always able to train with the actual systems due to the supply shortage. Aircrew are forced to read a manual describing how a system will work instead of actually training with the system. The CNA's after action report for Operation Desert Fox highlights this training shortfall. The report shows that the squadrons able to train with devices such as the F/A-18's laser targeting pod prior to the operation had a 17% better mission success rate than squadrons that could not train with such devices.[26]

This allocation discrimination process not only hurts aircrew but also takes a toll on the maintainers charged with maintaining these particular systems. Most of these weapons systems are maintenance intensive (e.g. ATFLIR) and require a great deal of hands-on training for the technicians who must keep these systems in an up and ready status. Dividing the fleet in half will help alleviate the allocation and training burdens currently on the fleet supply system and training officers.

Simulators are good procedural trainers for aircrew; however, Hornet simulators rarely have the latest weapon systems programmed into them. Simulators are often years

behind the technology that the airplane is using. When an aviator flies a simulator with outdated weapon system technology, that aviator is forced to train using outdated procedures that may or may not resemble the actual procedures used inside the aircraft. Training in a simulator that requires outdated procedures is obviously detrimental to the aviator and does even less for the maintenance personnel who have to fix the equipment.

One of the more compelling reasons for adopting this new way of employing the Hornet is described in a paper written by Thomas K. Adams. In the paper, Mr. Adams describes how technology is rapidly advancing to a point beyond which humans can interface with it.[27] Mr. Adams describes how advances in technology are allowing computer systems to gather, process, and display enormous amounts of data at a rate that can overwhelm the human brain.[28] The weapons suite on board the F/A-18 Hornet is just such a technology.

Hornet aircrew commonly refer to this phenomenon that overwhelms the human brain as reverting to "stem-power." Stem-power is slang for when a pilot becomes overwhelmed by information being displayed to him or her in the cockpit. During this time, the aviators are forced to operate using dramatically reduced mental capabilities. When pilots are overwhelmed, operating on "stem-power," they often inadvertently revert back to their most repetitive training for survival. The depth and quality of this training can literally mean life or death for Hornet pilots *in extremis*. As a pilot's training becomes more diverse, the opportunities available for repetitive training are inevitably diminished, but demands on pilots increase. By contrast, training an aviator for one tactical mission will afford that pilot a better opportunity to operate at his peak mental

capability longer and also to cope more aptly once a pilot reverts to "stem power" during critical moments of flight.

Over the years the F/A-18 has continued to evolve and mature as an airframe. The latest major evolution was the advent of the F/A-18 E/F Super Hornet. The Super Hornet retains all of the traits of its predecessor, the F/A-18, plus a host of new technologies and capabilities. One of the more substantial capabilities is found in the F/A-18 F. The F/A-18 F is a two-seat cockpit aircraft. The two-seat variant displaces the workload inside the jet over two aircrew members. An argument can be made that, as a two-seat aircraft, the F/A-18 F aircrew should be kept in the multi-mission role assuming two aircrew are better than one at dealing with the complexities mentioned earlier. This assumption is confirmed in an after action report by the CNA for Operation Allied Force where NATO bombers targeted Yugoslavia. The after action report suggests that aircraft with two-seat cockpits, such as the F-14 Tomcat, preformed better laser guided bomb deliveries than their single cockpit counterparts due to the Tomcat's extra aircrew.[29] In theory, the F/A-18 F could handle a multi-mission role better than a typical single seat squadron could; however, the advantages of changing the F/A-18 F's mission to a singularized mission still outweigh the benefits of not changing it.

There are significantly fewer two-seat F/A-18 F squadrons than there are single-seat F/A-18 squadrons in the Navy. If an air-wing deploys with an F/A-18 F squadron, the F/A-18 F squadron should be assigned an air-to-ground role vice an air-to-air role. The reasons for this assignment are numerous. First, the air-to-ground role can be significantly more planning-intensive than the air-to-air arena, and the extra bodies in an F/A-18 F squadron could be better utilized for this additional planning. Second, forward

air controller (FAC) platforms should be a two-seat aircraft. The FAC mission can be accomplished via a single-seat aircraft, but the pilot would have to be an exceptionally gifted aviator well trained for that specific mission. Third, the various air-to-ground missions, such as close air support, SCAR, aerial reconnaissance, and the employment of specialized air-to-ground munitions can be accomplished with a higher degree of success by having a second person whose job entails operating the various sensors required for those missions. This situation in turn will free the pilot and allow him to concentrate on aviating, navigating, and communicating.

Individuals interviewed for this paper suggest that a major roadblock to the idea of singularized missions is found next to the pride within some of the leaders of Naval Aviation. Commanders of squadrons often posses competitive Type A personalities. Commanders must compete against one another for promotion. A commander's overall usefulness or relevancy to his superior, the carrier air-wing commander (CAG), could often play a role in whether or not the commander continues to advance in rank. One of the methods potentially used to ensure a commander's squadron is relevant and useful to the CAG is to keep the respective squadron capable of executing any task or mission. This method would be impossible if the current military struggle revolves around an air-to-air threat, and a particular commander's squadron is dedicated to fight air-to-ground missions. In this scenario, the squadron commander could perceivably be left out of contention for promotion.

Individuals selected for command are forced to make tough decisions daily. They hopefully make these decisions with their squadron's, and, ultimately their country's, best interests in mind. In order for the Navy's elite fighter community to have a realistic

chance at being the best it can be, the leaders of the Naval Aviation community will have to continue to make tough decisions while working towards a new cultural mindset. This new mindset cannot require a squadron commander to be involved in every mission or conflict to remain competitive. Only then can the concept of singularized squadrons have any serious chance of success.

As Naval leaders contemplate the likelihood of future conflicts, it's not hard to imagine an upcoming air-to-air clash between the United States and any number of threat nations. Such a clash could involve vast attrition rates for the aviation community. A future CAG may be apprehensive about reducing his available air-to-air assets by adopting the singularized mission when facing such a dilemma. The CAG has the option of keeping his current air-force, which is capable of achieving a 53.64% success rate in air combat, or he can elect to adopt the proposed new training curriculum and potentially enjoy a much higher success rate, a success rate comparable to the F-15C success rate. To my knowledge a metric has not been created to model such a theory; however, any option that gives an aviator a higher percentage of survival/success is worth implementing.

From day one of the F/A-18's existence, F/A-18 aircrew have been doing more with less. It is time to take that "doing more with less" mantra and apply it to Naval Aviation's culture. By creating half the number of fully capable air-to-air and air-to-ground aircrew the Navy will receive a considerably more proficient product. The professional naval aviators flying in harms way, day in and day out, deserve to train like best pilots in the world. In the end, the Hornet will serve in the capacity for which it was

built - a true multi-mission/multi-role aircraft. The pilot however, should serve in the capacity for which he or she is best suited - that being a single mission specialty role.

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